

LABORATORY ANALYSIS



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Department **NC**
Equipment No. **2036 SPINDLE (00068)**
System **Oil**
Oil Type **ENGINEERED LUBRICANTS ENSPIN NO.6-PF (--- GAL)**

Diagnosis

Particle counts are slightly elevated but lower than the last sample. If filter element was replaced recently continue use to allow more time for filtration. All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sample Information

Lab Number	New	2406-00858	2312-00183	2305-00767
Date of Sample	(Typical)	25 Jun 2024	01 Dec 2023	19 May 2023
Oil Added		UNK	UNK	UNK
Last Drain Date		--	--	--
Last Filter Service		--	--	--
Sample Point		---	---	---
Sample Status		ABNORMAL	SEVERE	ABNORMAL

VISCOSITY @ 100F or 40C (ASTM D-445)

SSU Vis. @ 100F	SSU	63.8	63.6	63.2
cSt Vis. @ 40C	cSt	10	10.56	10.46

% WATER - KARL FISCHER (ASTM E203)

% Water (KF)	%	0.011	---	---
ppm Water (KF)	ppm	110	---	---

COLOR (BASED ON ASTM D1500 STANDARDS)

Color	Scale 0-8	0.5	1.5	2.0	2.0
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PARTICLE COUNT (PER 1ML)

ISO CODE	ISO 4406(c)	>16/14/12	19/17/14	19/18/15	17/16/12
4 Micron & Larger	particles/ml	>640	▲ 3,225	▲ 3,674	● 1,217
6 Micron & Larger	particles/ml	>160	▲ 1,071	▲ 1,532	▲ 474
14 Micron & Larger	particles/ml	>40	▲ 98	▲ 227	■ 33
21 Micron & Larger	particles/ml	>10	▲ 26	▲ 83	■ 7
38 Micron & Larger	particles/ml	>3	■ 1	▲ 12	■ 0
70 Micron & Larger	particles/ml	>3	■ 0	■ 1	■ 0

ICP - OILS (REPORTED IN PARTS PER MILLION)

Aluminum (Al)	ppm	<5	<5	<5	
Antimony (Sb)	ppm	<5	<5	<5	
Cadmium (Cd)	ppm	<5	<5	<5	
Chromium (Cr)	ppm	<5	<5	<5	
Cobalt (Co)	ppm	<5	<5	<5	
Copper (Cu)	ppm	■ <5	■ <5	■ <5	
Iron (Fe)	ppm	<5	<5	<5	
Lead (Pb)	ppm	<5	<5	<5	
Manganese (Mn)	ppm	<5	<5	<5	
Molybdenum(Mo)	ppm	<5	<5	<5	
Nickel (Ni)	ppm	<5	<5	<5	
Silver (Ag)	ppm	<5	<5	<5	
Tin (Sn)	ppm	<5	<5	<5	
Titanium (Ti)	ppm	<5	<5	<5	
Vanadium (V)	ppm	<5	<5	<5	
Barium (Ba)	ppm	<5	<5	<5	
Boron (B)	ppm	<5	<5	<5	
Calcium (Ca)	ppm	<5	<5	<5	
Magnesium (Mg)	ppm	<5	<5	<5	
Phosphorus(P)	ppm	20	18	17	
Silicon (Si)	ppm	<5	<5	<5	
Zinc (Zn)	ppm	63	41	32	
Sulfur (S)	ppm	715	954	653	744

Customer Id: BACSTL
Sample No.: EN24060858
Lab Number: 24060858
Test Package: TEST



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To discuss the diagnosis or test data:

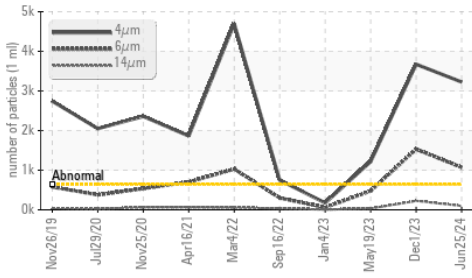
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To change component or sample information:

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OIL ANALYSIS REPORT

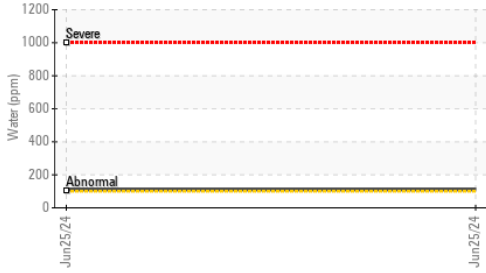
▲ Particle Trend



DR FERROGRAPHY READINGS

L		■ 8.8	■ 2.4	■ 1.1
S		■ 0.1	■ 0.8	■ 0.3
WPC	DL + DS	■ 8.9	■ 3.2	■ 1.4

Water (KF)



Viscosity @ 40°C

